**Supplementary File 1**. Summary of CSP-derived peptides used in this study.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Peptide | Origin | Sequence | Length (aa) | Analysis | | | | |
| MD | CD | X-ray cryst. | ITC | NS EM |
| 210-1 | Pv VK210 | GDRADGQPAGDRADGQPA | 18 |  | ✓ | ✓ | ✓ |  |
| 210-2 | Pv VK210 | GDRAAGQPAGDRAAGQPA | 18 |  | ✓ | ✓ | ✓ |  |
| 210-3 | Pv VK210 | GDRADGQPAGDRAAGQPA | 18 |  | ✓ | ✓ | ✓ |  |
| 210-4 | Pv VK210 | GDRAAGQPAGDRADGQPA | 18 |  | ✓ | ✓ | ✓ |  |
| 210-5 | Pv VK210 | GDRAAGQPAGNGAGGQAA | 18 |  | ✓ | ✓ | ✓ |  |
| 210-6 | Pv VK210 | GDRADGQPAGDRADGQPAGDRADGQPA | 27 | ✓ |  |  |  |  |
| 210-7 | Pv VK210 | GDRAAGQPAGDRAAGQPAGDRAAGQPA | 27 | ✓ |  |  |  |  |
| 210-8 | Pv VK210 | GDRADGQPAGDRAAGQPAGDRADGQPA | 27 | ✓ |  |  |  |  |
| 210-9 | Pv VK210 | GDRAAGQPAGDRAAGQPAGNGAGGQAA | 27 | ✓ |  |  |  |  |
| 210-10 | Pv VK210 | GDRADGQPAGDRADGQPA  GDRADGQPAGDRADGQPA | 36 |  |  |  |  | ✓ |
| 247-1 | Pv VK247 | ANGAGNQPGANGAGNQPGANGAGNQPG | 27 | ✓ | ✓ |  | ✓ |  |
| 247-2 | Pv VK247 | EDGAGNQPGANGAGNQPGANGAGNQPG | 27 | ✓ | ✓ | ✓ | ✓ | ✓ |
| 247-3 | Pv VK247 | ANGAGNQPGANGAGNQPGANGAGGQAA | 27 | ✓ | ✓ | ✓ | ✓ |  |
| 247-4 | Pv VK247 | ANGAGNQPGANGAGNQPG | 18 |  |  | ✓ | ✓ |  |
| NPNDx2(1) | Pb ANKA | PPPPNPNDPPPPNPNDPPPPNPND | 24 |  |  |  |  | ✓ |
| NANP5 (2) | Pf NF54 | NANPNANPNANPNANPNANP | 20 |  |  |  |  | ✓ |

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